AMENDMENT UNDER 37 C.F.R. § 1.111 Attorney Docket No.: Q96125

Application No.: 10/587,398

AMENDMENTS TO THE SPECIFICATION

Page 8, please replace the first full paragraph with the following amended

paragraph:

The term "high glucose medium" as used herein refers to an animal cell culture medium

further containing D-glucose ranging from 3,500 to 5,500 mg/ℓ mg/mℓ and sodium pyruvate

ranging from 50 to 200 mg/  $\ell$  mg/m $\ell$ . Representative commercially available high glucose media

include, but are not limited to, HG(high glucose)-DMEM, IMDM and so on.

Page 9, please replace the last paragraph that bridges to page 10 with the following

amended paragraph:

In order to isolate and culture multipotent progenitor/stem cells from the cord blood-

derived mononuclear cells, the mononuclear cells are cultured in a series of animal cell culture

media consisting of a first, second and third media in order. The animal cell culture medium

used in the present invention is a conventional animal cell culture medium employed in the art

which may further contain additional ingredients and/or antibiotics according to the particular

purpose of cultivation. Representative commercially available animal cell culture media include,

but are not limited to, RPMI1640, MEM, α-MEM, IMDM or DMEM, preferably DMEM.

Preferably, the animal cell culture medium is a high glucose medium which further contains D-

glucose ranging from 3,500 to 5,500 mg/ℓ mg/mθ and sodium pyruvate ranging from 50 to 200

mg/ℓ mg/mℓ and may contain additional ingredients and/or antibiotics according to the particular

purpose of cultivation. In a preferred embodiment of the present invention, HG-DMEM (Gibco

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Cat. No. 12800-017) containing additional 4.500 mg/l mg/ml of D-glucose and 110 mg/l mg/ml of sodium pyruvate is employed as the high glucose medium.

Page 10, please replace the last paragraph that bridges to page 11 with the following

amended paragraph:

After the second culture, when mono-layer cell colony forming cells are grown to 80 to 90% of adhesion, the culture medium is removed, and the cells are washed with PBS and treated with trypsin/EDTA, to recover the cells. The cells are inoculated into the third animal cell culture medium at a concentration ranging from 2×10<sup>4</sup> to 8×10<sup>4</sup> cells/cm<sup>2</sup> and cultured at 37°C under an atmosphere of 5% CO<sub>2</sub> for 1 to 2 weeks to induce growth and proliferation of the cells into multipotent progenitor/stem cells. Preferably, the culture medium is replaced with a fresh medium at an interval of 3 to 5 days. The cultivation in the third animal cell culture medium is to maintain undifferentiated state of the cells cultured in the second animal cell culture medium and induce proliferation thereof. At this time, the third animal cell culture medium is the same as the first animal cell culture medium except that G-CSF is replaced with SCF and EGF. Preferably, the third animal cell culture medium is a high glucose culture medium further containing 10 to 20% FBS, 1 to 2 mM L-glutamine, 10 to 100 ng/ml mg/mℓ of SCF and 5 to 50 ng/ml mg/mℓ of EGF. SCF and EGF induce the proliferation of stem cells, and in particular, SCF

plays the role of maintaining the multipotent progenitor/stem cells.

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